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**Before the**
**FEDERAL COMMUNICATIONS COMMISSION**
**Washington, D.C. 20554**



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| In the Matter of<br><br>Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service ("WCS") | GN Docket No. 96-228 |



# REPLY COMMENTS OF DIGITAL SATELLITE BROADCASTING CORPORATION

## I. INTRODUCTION AND SUMMARY

Digital Satellite Broadcasting Corporation ("DSBC") submits these reply comments in response to the notice of proposed rule making ("NPRM") released by the Federal Communications Commission ("Commission" or "FCC") on November 12, 1996 in the above-captioned proceeding.[1] In these reply comments, DSBC (1) urges the Commission, in accordance with the overwhelming support in the record for the division of the proposed WCS spectrum into relatively small spectrum blocks for limited service areas, to auction the proposed WCS spectrum in 5 MHz/MTA blocks, (2) reiterates that it is imperative that the Commission implement measures in the WCS bands to ensure adequate protection for adjacent satellite DARS; and (3) requests that the Commission complete the licensing of satellite DARS at 2320-2345 MHz before auctioning any WCS licenses pursuant to this proceeding.

[1] *Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service*, GN Docket No. 96-228, Notice of Proposed Rule Making, FCC No. 96-441, (Nov. 12, 1996) ("NPRM").

## II. THE COMMISSION SHOULD ACT IN ACCORDANCE WITH THE OVERWHELMING MAJORITY OF COMMENTERS AND DIVIDE THE PROPOSED WCS SPECTRUM INTO SMALL SPECTRUM AND GEOGRAPHIC BLOCKS

The commenters in this proceeding stand in overwhelming support for the division of WCS licenses into relatively small spectrum blocks and geographic areas.[2] Commenters representing diverse areas of the wireless industry endorse the creation of 5-10 MHz licenses serving MTAs or BTAs to encourage the maximum level of competition in the proposed WCS bands and encourage the development of diverse innovative services and the provision of services to rural and niche markets.[3] Like DSBC, many commenters argue that the creation of larger size licenses (in terms of spectrum and/or service area) would lead to the inefficient use of the proposed WCS spectrum and restrict participation in the provision of wireless services. Consistent with these views, the Commission should auction the spectrum in 5 MHz blocks serving MTAs.

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[2] *See e.g.,* Comments of Airtouch Communications, Inc. at 5-10 ("Airtouch"); Comments of AT&T Wireless Services, Inc. at 2-5 ("AT&T Wireless"); Comments of Cellular Telecommunications Indus. Assoc. at 14 ("CTIA"); Comments of Digivox Corp. at 3-6; Comments of GTE at 3-6; Comments of Omnipoint Corp. at 7-9; Comments of Primeco Personal Communications, L.P. at 9-13 ("Primeco"); Comments of Personal Communications Indus. Assoc. at 9-10, 16-18 ("PCIA"); Comments of SBC Communications, Inc. at 3-7 ("SBC"); Comments of UTC at 3-7.

[3] ADC Telecommunications, Inc. ("ADC"), one of the few commenters to propose nationwide licenses in these bands, asks the Commission to set aside 5 MHz nationwide licenses in the 2345-2360 MHz band solely for DARS use. *See* Comments of ADC Telecommunications, Inc. at 5. ADC's proposal, however, ignores the fact that nationwide satellite licenses in that band present thorny coordination problems. In addition, as much as DSBC would also liked to have seen exclusive DARS use of the 2345-2360 MHz band, Congress has mandated that the Commission allocate additional uses of that spectrum. *See* Omnibus Consolidated Appropriations Act, 1997, Pub. L. No. 104-208, 110 Stat. 3009, § 3001 (1996) ("Omnibus Act"). ADC's proposal to leave untouched the satellite DARS allocation at 2320-2345 MHz therefore directly contravenes Congress' express order to allocate that band to additional wireless users. DSBC has taken these issues into account and proposes 5 MHz/MTA licenses that would be available to satellite DARS licensees. While DSBC believes that DARS entities should be allowed to bid for licenses in the proposed WCS spectrum along with other wireless entities, the Omnibus Act does not allow the Commission to retain the allocation for exclusive satellite DARS use in the proposed WCS bands.

## III. THE COMMISSION MUST IMPLEMENT MEASURES TO PROTECT ADJACENT 2320-2345 MHZ SATELLITE DARS OPERATIONS FROM WCS INTERFERENCE

It is critical to the viability and success of satellite DARS that the Commission implement measures within the WCS bands that protect adjacent satellite DARS entities from harmful emissions. In order that the 2320-2345 MHz satellite DARS band not be rendered a phantom allocation -- and, in order, also, that the nascent satellite DARS industry not be needlessly encumbered before it has even had the opportunity to develop -- it is imperative that the Commission take appropriate measures to protect satellite DARS.

In its initial comments in this proceeding, DSBC indicated that the out-of-band emission limits proposed in the NPRM for WCS transmitters would not protect DARS receivers from harmful interference. In particular, DSBC's preliminary analysis found that the degree of interference that mobile, PCS-like operations could cause could cripple satellite DARS. Two other pending DARS applicants, American Mobile Radio Corporation and Primosphere, have now also provided independent preliminary calculations showing that the proposed out-of-band limits of the WCS NPRM require considerable modification in order to adequately protect DARS receivers from excessive interference.[4]

While DSBC does not disagree with the thrust of the technical comments of the other DARS applicants, DSBC believes the problem requires more fundamental consideration and action than merely changing the values for out-of-band limits.[5] As explained in DSBC's initial

[4] *See* Comments of Primosphere Ltd. Partnership at 5-6 & Technical Statement ("Primosphere"); Comments of American Mobile Radio Corporation at 1-2 & Technical Statement ("AMRC").

[5] Because satellite DARS receivers will be susceptible to absolute interference levels, and not variable levels based on the power of an unrelated transmitter, the WCS out-of-band limits cannot depend on the power level of the WCS transmitter.

comments, because the problem of interference to mobile satellite receivers from terrestrial transmitters is relatively new, the Commission cannot simply rely on traditional out-of-band emissions limits for terrestrial transmitters to provide adequate protection to satellite DARS receivers. Instead, the Commission needs to examine the basic factors to be included in interference calculations in the mobile satellite context.[6]

DSBC believes that the Commission staff and pending satellite DARS applicants can work together to establish appropriate interference measures without delaying the auction of WCS spectrum by the congressional deadline. Furthermore, the analyses performed to date by the pending satellite DARS applicants in this proceeding establishes a ready foundation for the analysis that will be necessary to address these potential interference problems.[7]

Some might try to argue that if the only way to correct these interference problems is to establish guard bands, then such spectrum should come from the dedicated satellite DARS band at 2320-2345 MHz. That band allocation, however, has already been halved, from 50 to 25 MHz. It simply cannot be reduced any further without sacrificing the integrity of the dedicated satellite DARS allocation and hindering the introduction of an economically viable and competitive satellite DARS. Because an economically viable satellite DARS system requires a minimum of 12.5 MHz per licensee, any further reduction of spectrum in that band would necessarily result in a monopoly satellite DARS provider. Such a result would contradict the Commission's policy favoring competition in the telecommunications marketplace, as well as the

[6] For example, this examination process would likely involve the establishment of methods for defining and measuring out-of-band emissions from WCS transmitters, in conjunction with the development of acceptable interference levels and realistic interference scenarios.

[7] Indeed, these pending satellite DARS applicants have already initiated the process of coordinating to work together with the Commission staff on these issues.

desire implicit in Congress's decision to preserve the 25 MHz band at 2320-2345 MHz for two satellite DARS providers to compete in the market.[8]

For these reasons, the Commission should not consider any further reduction of the dedicated satellite DARS band at 2320-2345 MHz to solve the out-of-band emissions problems. Rather, the Commission should pursue alternative solutions, such as the use of guardbands and/or filters in the WCS band segments that are adjacent to the dedicated satellite DARS spectrum, as proposed by Primosphere.[9]

## IV. EQUITY REQUIRES THAT THE COMMISSION COMPLETE THE LICENSING OF SATELLITE DARS APPLICANTS AT 2320-2345 MHZ BEFORE AUCTIONING WCS LICENSES

In order that satellite DARS entities can compete with other wireless entities for the reallocated, flexible-use WCS spectrum, as advocated by DSBC in its initial comments, the Commission should expedite its resolution of the pending proceedings in IB Docket No. 95-91/GEN Docket No. 90-357 so that the pending satellite DARS applicants can move forward and obtain licenses in the 2320-2345 MHz band.[10] As Primosphere, another pending satellite DARS

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[8] At the time Congress was considering § 3001, it was commonly understood that the 2320-2345 MHz band would support two satellite DARS licensees. *See DARS Spectrum to be Reduced, Then Auctioned to Pay for Student Loan Program*, Satellite Week, June 10, 1996; *DARS Auctions to Help Pay for Education Tax Credit Under Clinton Plan*, Communications Today, June 5, 1996.

[9] *See* Comments of Primosphere at Technical Statement. DSBC also supports Primosphere's opposition to retention of aeronautical telemetry allocations in the 2310-2360 MHz band, even on a secondary basis. *See* Comments of Primosphere at 6-7.

[10] The Consumer Electronics Manufacturers Association ("CEMA") urges the Commission to make no allocations until CEMA's Digital Audio Radio Subcommittee has concluded tests of the suitability of satellite DARS at 2320-2345 MHz. *See* Comments of the Consumer Electronics Manufacturers Association at 4-5. This request ignores the fact that the allocation for satellite DARS in these bands has already been studied and allocated both nationally, by the Commission, and internationally, by the appropriate international bodies. The Commission should therefore proceed as described below with the adoption of service rules and the auction of licenses for 2320-2345 MHz satellite DARS.

applicant, explains in its comments, "[s]imple equity dictates that the present pool of SDARS applicants be treated before licenses are granted to others."[11] Primosphere further explains that the pending satellite DARS applicants have "weathered years of wait" in their efforts to provide new services and public interest benefits to U.S. consumers. During that period, the applicants have developed detailed business plans and invested substantial resources in the development of technology and standards for this new service.[12] In addition, as DSBC explained in its initial comments in this proceeding, satellite DARS entities are most likely to use the proposed WCS spectrum for uses supplementing licensed operations in the 2320-2345 MHz band, such as terrestrial repeaters. Accordingly, the pending satellite DARS applicants will not be able to assess their needs for WCS spectrum for auxiliary purposes unless licenses at 2320-2345 MHz are determined in advance of the WCS auction. The Commission should allow sufficient time between the satellite DARS and WCS auctions to allow winners in the satellite DARS auction both to assess their needs for WCS spectrum and to raise additional funds to participate in the WCS auction, if necessary.

DSBC requests that the Commission license the 2320-2345 MHz satellite DARS systems before auctioning any WCS licenses pursuant to this proceeding. Dedicated satellite DARS band applicants will be put at an unfair competitive disadvantage and prevented from competing for proposed WCS licenses unless the WCS bands are auctioned later.[13]

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[11] Comments of Primosphere at 2.

[12] *See* Comments of Primosphere at 2-3 & n.8.

[13] The National Association of Broadcasters contends, not surprisingly, that the pending satellite DARS applicants have no right to an allocation for their services at all. *See* Comments of National Association of Broadcasters at 2 & n.7. DSBC urges the Commission to disregard the NAB's transparent attempt to delay the implementation of new

## CONCLUSION

For the reasons stated above, DSBC urges the Commission to (1) auction the proposed WCS spectrum in 5 MHz/MTA blocks, (2) implement appropriate interference measures in the WCS bands to ensure adequate protection for adjacent satellite DARS; and (3) complete the licensing process for satellite DARS applicants at 2320-2345 MHz before auctioning any WCS licenses pursuant to this proceeding.

Respectfully submitted,

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competitive services that some incumbent broadcasters unjustifiably and irrationally fear will have a detrimental impact on over-the-air radio broadcasting.

## CERTIFICATE OF SERVICE

I, Kathryn M. Stasko, do hereby certify that the foregoing **REPLY COMMENTS OF DIGITAL SATELLITE BROADCASTING CORPORATION** were hand delivered on this 16th day of December, to the following:

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